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GOLMAN'S RURAL WORLD

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Letters should be addressed to COLMAN'S RURAL WORLD, 72 Olive St., St. Louis, Mo. Advertising rates furnished on application. Advertisers will find the RURAL WORLD one of the best advertising mediums of its class in the United States. D. A. Watts, Traveling Representative, P. O. address Lebanon, Ill., will give prompt attention to requests for inspection of herds or advertising rates for sales.

The RURAL WORLD recently urged upon its farmer readers the importance of being prepared to give the census takers exact information when called upon. They can do much to facilitate the work and make the returns more valuable by making memoranda of facts which will be called for. On the eighth page of this issue will be found a summary prepared by the Department of Agriculture which will greatly assist farmers in preparing for the census takers' visit.

A FARMER'S SIGNBOARDS.

There is no occupation in which evidence of real success or the reverse are so patent to all observers as that of farming. The farmer who is prosperous doesn't have to make declarations of the fact.
The signboards which testify of his success will be well kept road sides, fences in good repair, thrifty orchards, washes in fields arched by proper means, pastures with abundant grass growth, but free from weeds, good grades of stock, provision for protecting stock in times of cold and storm, poultry yard and house in condition to be profitable, manure intelligently saved and wisely used, a good garden spot and this told so as to make it pay, farm implements shielded from summer's sun and winter's storm. These signboards will be read by neighbors and the casual passer-by and yet the buildings may not be palatial, though we are heartily in sympathy with the best farm home that can be provided without incurring debt.

To bring about these unmistakable evidences of thrift means exercise of brain and brawn. The latter especially must be put to work and worked hard. Did you know that there are more people who are lazy mentally than there are of those who are physically lazy? Many will do, and do it well, a task that has been all arranged for them, but when left to individual resources where the exercise of mental powers in forming plans is demanded such men are utter failures. The power to formulate wise plans and to execute them or have them executed is a business faculty that is too often overlooked on the farm. A commercial enterprise would pay what a farmer would regard as an exorbitant salary to a man possessing this efficiency, and yet no business requires it more than that of farming.

THAT DOOR YARD.

How frequently in the farm home the improvement of the door yard is the bone of contention. The contempt of the "gude mon" and the boys for the "pony bed" is discouraging. The exercise of the orange brush, broken slats and the like are not protection against the old hen and her young brood, or the little pigs or the stray calf. The statement that graceful vines, flowering shrubbery and flower beds take too much time and don't pay needs consideration from the cold-blooded business standpoint of dollars and cents. A farm home devoid of such adornment, if offered for sale, will not command the price it would if it were made attractive by flower and vine. People will pay for "good looks." Then is it right to starve the soul's love for the beautiful? The city woman can find relief from brick walls, granite walks and barren backyards in the city parks. The softened expressions of care-burdened women, when witnessing these spots of green, so clean, and made beautiful with bits of color, are object lessons as to how cares may be lifted, because life is not all a dull routine of work that is only to bring creature comforts and increase lands and herds.

In place of the laugh of derision when the decoration of the door yard is discussed give the smiling nod of approval that you did when courting Mary, as she joyously told of her admiration for the ferns on the bank of the creek, but out of reach, that Sunday afternoon as you strolled through the wood, when she asked if you could get them.
It is not wise to undertake elaborate flower beds of many designs. No farm woman has time or strength for such. The most satisfactory arrangement will be to have as many vines in evidence as possible. These may cover old, unsightly buildings or dead trees and be bowers of beauty. The wild cucumber, Maderia vines, morning glories, the Virginia creeper, flowering beans and similar hardy vines, all of which require little care in culture, can, if judiciously planted and tastefully trained, make the old farm home picturesque. Vines must have an abundance of water. Flower beds are best around the foundation of the house. These, of course, must be well fertilized. Do not make the beds wide. Select shrub-

SPECIAL OFFER.

While the regular subscription price for the RURAL WORLD will remain at one dollar per year, yet, in order to more than double our present circulation for the year 1900 we have determined for a brief period to allow all of our present subscribers to renew their subscriptions by sending the name of a NEW subscriber with their own for one dollar—thus getting two papers for one year for only one dollar. In all cases, however, the additional name or names must be new subscribers. Renewals will not be received at fifty cents, except when accompanied by a new subscriber. Two NEW subscribers at the same time, however, will be received for one year for one dollar. New subscribers can also send additional new subscribers on the same terms. This is below the actual cost of the paper. But so anxious are we to have the RURAL WORLD enter tens of thousands of new homes that we are willing to make this low offer. We know the RURAL WORLD is doing a grand work in uplifting the farmer, and we are more than anxious that its benefits shall be extended to the widest limits. Hence this special offer. We hope to have 100,000 subscribers on our list for 1900.

bery that will be ornamental when not in bloom as well as when covered with blossoms. Then leave the lawn free of obstructions so that it can be easily mowed. Fence the stock out and give Mary and the girls a chance to display their artistic tastes to beautify the old farm home, and when they have made it a thing of beauty and compliments are tendered in the form of "John, you have fixed up the old place handsomely, I never thought it could be made to look so well," don't flush with self-glories and tell them "it was done," but remember the part that Mary and the girls had in it. Such gratification of taste will make Mary the better wife because she feels that she is regarded as more than "cook" or servant without hire.

DESTROYING ORANGE HEDGE.

Editor RURAL WORLD: How many of the readers know how to kill out an old orange hedge fence without grubbing out the roots? A year ago last fall I moved the weeds on one side of an eighth of a mile hedge and then stuffed in a good load of old straw, as close to the roots as I could with a fork. On a dry, windy day, just before frost, after the hedge had "greened" up from fall rains, I think it was the first of October, I set it on fire and burned up the hedge. I also killed a quarter mile of a stump row—the same fall. I put the straw on in the spring and let the hedge grow up through it before I set it on fire.

In looking over my peach trees, I find only one-third the usual amount of buds; but enough for a fair crop if there is no further injury.
A good way to move a cow with young calf is to take the end-gate out of the wagon, tie in the calf, then get up on the spring seat and proceed. F. W. W. Pettis Co., Mo.

HOW WE GOT OUR HAY BARNS.

Editor RURAL WORLD: Feb. 28 we had one of the biggest snow storms of the season. It began the day previous at daylight and increased in fury all day and that night and next morning it was like a howling tempest with the snow falling in huge banks around the buildings and along hedges and fences.

I notice that Wm. H. Phelps, of Oklahoma, in his letter speaks of his "cow stable" as "being built with lumber saved on the place." This suggested the thought that perhaps a bit of experience of mine in that line might be of interest to some of your readers.
Last winter a neighbor, who, like myself, had the previous summer lost several fine racks of hay by repeated storms blowing them over, and having timber adjacent to mine, proposed that we join hands and get a good portable saw and engine in our timber and saw up enough of our rough trees to put up such a good hay barn. The proposition struck me just right and we were not long in finding a man with a good outfit, saw, engine, wagon, log sled, chains, etc., who was ready for a job. We made a contract with him to saw what lumber we wanted at 50 cents per hundred, he to furnish wagon, log sled and chains, we to do all the cutting and hauling.
The weather and roads were so bad he could not move his engine in till about the first of April. In the meantime I had taken advantage of the cold weather in February and March, and with the mill man's log sled and with my son and hired man we "maked" in all our logs to the mill site, about 140 logs, big and little, ready for him to go to work. My neighbor also came on and got out his logs and several other neighbors came in with logs so that we gave the sawyer a good two months' job.
Never having had experience in lumbering, I had little idea how much lumber a log would make, so continued cutting and hauling all I had time for, marking each log for what I thought it would

make best-framing timber, sills, posts, boxes (8, 10, 12 and 14 feet), rafters, joists, fencing, crib slats, gate stuff, etc.

As a result of this enterprise we have three new hay barns in the neighborhood, including mine.
My own improvements are as follows: Hay barn 16x32x12, with a 12-foot calf shed attached, all under shingle roof, in which we put 18 wagon loads of hay last summer; also I have an 8-foot corn crib and a 12-foot wagon shed 24 feet long under shingle roof (crib 300 bu. capacity). I built two hog houses 8x16 and 16x24, partitioned off for brood sows at farrowing time. I got 2,000 feet of fencing, half of which is already on the fence and enough lumber left to make a wood house and another chicken house for the wife, besides several hundred feet sold to neighbors.

Now these improvements are all made of lumber saved in my own timber from rough trees that I could make no other use of—mostly elm, water oak, pin oak and sycamore. My son, myself and hired man on the farm did all the work of getting out the logs, hauling and putting up the buildings with the exception of two days' work by a carpenter helping to frame the timbers for the barn.

Of course a good deal of the lumber was rough with occasional knot holes but by using the best with plenty to pick from and being a little "handy" with tools ourselves we think we did a very respectable job; at least it beats hay racks, straw sheds, rail pens and fence corners for stock all hollow, to say nothing of not having to milk out in the mud, Brother Heaton.

My outlay in cash in these buildings is as follows:
17,000 feet of lumber at 20c.....\$3,400
Shingles for barn and crib and sheds, 40,000 Nails, hinges, bolts, etc., about.....8.00
Carpenter, two days.....4.00
Total.....\$3,408.00

This does not include our labor and the hired man or the cash value of the lumber, which, of course, should count for something; but as we've worked on the buildings at odd moments, when we were not needed in the field, or at leisure times, we took no account of the time. Perhaps I should explain that I have another barn, built several years ago, with a track and rigging for hay fork. We put a track in the new barn and when one barn is filled with hay we simply take one the traveler, fork and rope, carrying them over to the other barn, put them up and in half an hour are ready for work again.
I don't like to have more stock on the place than I can provide shelter for and I now have the satisfaction of knowing that every hoof of stock on the place is under good shelter. Even the chickens have a good house and will have better as soon as we can make it.

I am not writing all this exploiting myself, but to show how cheap shelter and housing for hay and stock may be made by any one who may have a surplus of rough timber that is otherwise useless, except the tops for fire wood.
I may be asked what I did with the tops of all these trees from which this lumber was made. I sold some of it on the ground, let some of my neighbors cut it up on the shares, and gave some to the poor (and hauled it to them), and have the biggest pile of stove wood at my back door yard I ever had and enough left in the timber for another year. J. S. R. Johnson Co., Mo.

DWARF ESSEX RAPE.

Editor RURAL WORLD: I want to add my testimony as to the value of the RURAL WORLD. I prize it very highly and no paper that comes to our home is read as soon.

I would like to know some things about Dwarf Essex rape for pasture in the fall after clover gives out. Will it be ready to cut and sow early or late? Will it do so well as early or late? How should it be sown and land prepared to get the most out of it?
Carroll Co., Mo. J. W. EVANS.

Rape is much like cabbage plants that have fast formed heads. It makes a quick growth and may be sown at intervals during the season from early spring until middle or last of August. This would give ample time to feed out a crop of sweet corn in roasting ear stage, and then sow the land to rape for fall forage. The seed may be sown broadcast as one would turnip seed, using three to four pounds of seed per acre, or it may be sown in drills 2 to 3 inches apart, using from two to three pounds of seed to the acre, cultivating as one would a field of beets or similar crop until the plants get well started, when no more cultivation will be needed. The crop is utilized by turning stock directly into the field. It cannot be dried or put into a silo to advantage. For sheep and swine rape is especially valuable, but other stock highly appreciate its flavor and succulence. Care must be taken when first turning stock into a field of rape to guard against bloating.
In the Northern States rape is regarded very highly; whether it will be as valuable as far south as central Missouri is to be determined, but it is well worth a trial. Enough seed to sow a few acres at different times during the season and under different conditions will cost but a trifle. We hope some of the RURAL WORLD readers will make the trial and report results. Be sure and give Dwarf Essex rape seed. It does not live through the winter.

FARM FACTS AND THOUGHTS.

Editor RURAL WORLD: A recent perusal of farmers' bulletin No. 54 has given me a more exalted opinion of our native birds. I was always the friend of the birds. There is nothing I like better than to hear a bird sing. I like to see them at home in the orchard and near the house, flitting from tree to tree with no thought of being molested by anyone or anything; secure in the protection that has been afforded them in the past, and trustful for continuation of the same. Not for worlds would I abuse this trust. Surely this earth is large enough for us all. I am not an expansionist in this respect at least.

The bulletin in question gives some interesting facts concerning our bird friends, facts well worthy the study of us all. A postal card refers to the U. S. Department of Agriculture, Washington, D. C., will bring it. The noxious weed seed and the insects injurious to farming consumed by them are wonderful in the amount.

The farmers' bulletin that are published by the Department of Agriculture, and which can be gotten for the asking, form a farmers' library of great importance and benefit. Here is a fund of knowledge upon almost any subject to be had for the asking. Let us not be willfully ignorant.

Our farmers' institute of this county has come and gone, and the three days' sessions were well attended. The first day was given to home talent and the subjects treated were well handled. The interest and enthusiasm in institute work in this county are great. The engaged speakers from other portions of the state gave us the credit of having the best institute of the season thus far in their knowledge. We have a county that has made wonderful improvement in the last 20 years, and is susceptible of still greater improvement. Along the line of good roads there is a great work to be done.

It seems to me that the sameness and the tameness spoken of by one of your worthy correspondents in one of the February issues are more matters of opinion than of necessity. He who will endeavor to make of farming a success has no time to mope. And the varied complications of circumstances as regards raising, feeding and caring for stock, best methods of cultivation of all things grown on the farm, etc., etc., certainly give variety of thinking material enough to give spice to any one's mental digestion. Add to this yet a study of how best to grow men and women, the duties we owe to God and our fellowman, and if he wills no man need degenerate into a mere clod. The food for mental development is not lacking if only one will put forth the hand and pluck it. Pick up a handful of soil! What is it? Can you tell? Surely here is food for hours of profitable study. Papers teeming with information on this and kindred subjects are plentiful and cheap, often can be had for a year for what is spent for tobacco.
The U. S. Department of Agriculture publishes bulletins almost without number for free distribution. And scarcely a season but this is brought to the notice of these people by some energetic farmer. No, no! We fear the bad condition is caused by their being "not" in their ways.

The agricultural seed catalogues are again in season and are beautiful. To see the illustrations makes one feel like going to work, only old mother earth is not just ready yet. But we can plan and make an estimate of what is needed by way of seeds, and the probable cost, and send for same in good time. Mrs. Springer and I are partners and we always lay our plans jointly. We think of the things we need long equally to both and each should be consulted in all major decisions on the farm. One man rule you know is not according to republican government.

This is a history-making year. The United States has wonderfully expanded. The British—who know—may be wonderfully contracted ere long.
We farmers should be free expansionists on our own domains, making not only two blades of grass grow where one grew before, but make it a half-a-dozen or even more. A. N. SPRINGER. Tipton Co., Ind.

SORGHUM FOR FEED.

Editor RURAL WORLD: Leroy Cardner of Idlewild farm wants to hear from some one who has raised sorghum for hay. June 9, of last year, we sowed a few acres at the rate of one bushel of seed per acre with drill. The season seemed to be just suit. It grew to about five feet, making the finest hay of hay. Sept. 13 I cut it with a mower, let it cure about eight days and hauled it in. I would, however, recommend sowing earlier. In this latitude, about May 25, or soon after, according to the season, so the hay will be ready to cut earlier, giving a better chance to prepare the ground for the fall crop.

In preparing the ground for sorghum pulverize it very fine, then sow with drill, shallow, just sufficient to cover. Sow not less than one to one and a half bushels per acre. When sowed thick it makes finer hay and is more easily handled in loading and unloading. The horse fork is the very thing to unload with. For hay cut about the time it heads out; if sowed thick it will not head out much seed. As for result I am well pleased and will increase the acreage. Sorghum makes more feed per acre than any other crop, holds

its own in a dry season better than most crops, doesn't spoil as clover or some other hay if it a wet spell follows cutting. If sorghum is planted in rows about three and a half feet apart, hills of about eight to ten stalks each, about 15 inches apart, it makes more seed, and is an excellent feed for hogs and cattle. Commence feeding just as soon as it heads out. Stock will eat seed and stalks up clean.
GEORGE VALENTIN. Jackson Co., Ill.

SPRING DAYS AT SEVEN PINES.

Editor RURAL WORLD: Experience during the flight of years teaches us real practical, useful lessons. Out of knowledge we get wisdom. Yes, the minor in the hands around Cape Nome often finds in one pan of sand many small nuggets of gold. Usually the gold most of us mine out of experience comes in grains seldomly distributed. One feature of rural life which people seem to neglect is that we should be most concerned in dealing with negative conditions. For example: We should provide protection against winter coldness and the storms which prevail so severely from early October to April. Aside from buildings I would especially urge the planting of many evergreen trees for wind breaks about the house and the farm. Our native forest trees are largely disappearing, and the land must be clothed in other trees. Hedge rows or groves of pines and cedars are modifiers of severe storms, whether of summer-time or in the zero days of winter.

The bachelor at Seven Pines would say to "Wife of Sorghumite" that he uses his real, true name and has no literary title. He has had to make this explanation in several papers. The name may appear a little odd to some readers, yet it is true. I ask the editor of the RURAL WORLD to help me in keeping this fact clear.

To the couple of moderate possessions who launch out on the sea of matrimony in these days of sharp competition, there is one principle which is absolutely required, and that is mutual harmony. There must be a working together. If a civil marriage is to be a success, each must adapt himself to the requirements of the occupation. The average young man must receive hearty support in order to succeed. I know instances where the girl seems to have been adopted for ornamental purposes instead of true helpmate, and failures overlook them in a few years. Even so fine a ship as the City of Paris got on the fatal rocks because she was not guided by correct reckoning.

Time is given to us in seconds and minutes and hours, and they are always precious. Blessed are those who appreciate time and improve the days as they hurry by on swift wings. The wise shall shine as the brightness of the firmament and as the stars forever and ever.
Clark Co., Mo. JASPER BLINES.

Yes, brother, we will try to keep the fact clear in the minds of our readers that you are really and truly Jasper Blines, and we also hope the ladies will remember that you are a bachelor. And, ladies (don't let Jasper hear us), just note how sensibly he discusses matrimonial affairs. Don't you know we think he is very fond of the ladies (as he should be), and it wouldn't take much coaxing to get him into the Home Circle of the RURAL WORLD, and into a home circle of his own. We know him—he is modest and bashful. We hope he will improve the days that are going so swiftly by and be wise.

WEEK BY WEEK.

Editor RURAL WORLD: The cold weather hangs on to beat the world. Feed is melting away and there will not be a very great surplus left by the first of May. In these days there are sales every day, clearance sales. Creameries have so stimulated the raising of cows that the dairies run from ten to more than fifty cows. This means lots of calves. The first thing the farmer knows he is overstocked. He has neither enough meadow nor pasture. He is perforce compelled to make a sale.

Corn is selling at from 20 to 35 cents cash. There is very little laid up in crib along the railways. The farmers have learned a little. They have found that they can control the speculators somewhat by holding on to their corn, so they are not selling to any great extent. This is simply self preservation on the part. It isn't in the nature of a trust, which in my judgment is the hugest rascality ever practiced.

A farmer is the most taxed man in America. We cannot hide our land if we wanted to, or our cattle. What we have is plain to be seen. Hence, I say that the burden of taxation falls on the farmer. I was once honored by my fellow citizen by being elected to the office of County Supervisor. I investigated this subject and was astonished to find how miserably poor some of our leading business men were, judging by their tax list. If the men who loan money and are the recipients of enormous incomes, paid percentages of tax would be much less. I think that if notes and mortgages were not negotiable or collectable unless they had the assessor's stamp upon them, it would go far to equalize taxation. The merchants are looking around for seed potatoes of various kinds, notably for the early varieties. I think these are the sorts to grow here where the latter half of the growing season is generally

dry. The merchants are offering extra good prices for such varieties.

I once planted potatoes March 7 and had fine success. If possible, I think all potatoes should be planted by April 15. A late variety needs all the season in which to grow and mature. The quality of a well matured potato is far beyond one where the skin will slip when you dig it.

Land close to my farm sold the other day for \$40.40 per acre. There was a quarter section, well improved and it lies well. The man who sold is going to California or Oregon. Now, I don't believe he will ever be satisfied again in a home. The farm he sold he himself improved, built the house and barn, and turned over the primeval soil. Every tree he planted with his own hands. He is bald. The years have smoothed his pate till it glistens. I have often thought that it was a difficult matter to transplant an old tree and have it do well. I think the idea goes with such a man as this. It is too radical. The farm he sold he himself improved, built the house and barn, and turned over the primeval soil. Every tree he planted with his own hands. He is bald. The years have smoothed his pate till it glistens. I have often thought that it was a difficult matter to transplant an old tree and have it do well. I think the idea goes with such a man as this. It is too radical.

For me like one thing and some another. For me part I delight in familiar scenes. I know where I will be most likely to find certain flowers along in May and June in my own woods. I can in June go to where that timid bird the woodcock breeds and I so understand this bird that I can easily watch the brood feed in the edge of the swale. I know the haunts of the wood pewee, and where the little green heron nests down at the pond. Certainly do. Come to think about it, I can go straight to a crow's nest, and to the fat land where bluebirds hang their heads. I know where I will find the first little boy's breeches, and where the Claytons, earliest of posies, almost carpets the ground. And this individual so utterly foolish as to leave all these old acquaintances and make more to form new associations, and to learn new forms and strange faces? Not much, if I know myself, and I think I do.

Hundreds of American mules are going to South Africa, for the British service. Fort Worth, Texas, sent 400 the other day, making about 1,000 for that city, and they have realized about \$300,000. A scientific kicking mule would be quite a confidant in a hand and foot tussle.

The winter wheat and the rye thus far are looking well. I hardly think the weather from this on will destroy them. In the pastures along the fences I notice the horses pawing the snow and nibbling at the roots of the bluegrass. Such pasture is healthy for stock. The animals get a taste of the greenness at the roots and it is a relief for them. A good coat of rye in excellent pasture in the spring, say through March. It can be pastured that long and then it will yield a good crop of grain.

Farmers are impatient for spring. They have their summer's wood sawed ready for the stove; numbers are getting seed corn. I take it the seedmen will have many customers this spring. Men like pure breeds of corn as well as of hogs and cattle. Last year I sent off for two varieties of corn and the cribs look first-rate. It doesn't pay to raise mongrel stuff of any kind. Take a thoroughbred horse and stand him up by the side of a scrub and with half an eye you can see how pure stock excels. It is so with everything, cattle, hogs, chickens, turkeys and even geese. I for my part delight to look upon a fine horse. I am not a judge of the points that go to make a fine steed, but the tout ensemble I think I can appreciate as well as Clement or Mambrino, Jr., and tell why I like it.
EDWARD B. HEATON.

Many who have subscribed for the RURAL WORLD and the St. Louis "Republic," or the RURAL WORLD and "Globe-Democrat," in combination, ask if they can add new subscribers at the fifty-cent rate. We answer, yes. While there is no profit on such terms, yet the RURAL is so anxious to preach the gospel of progressive agriculture to an ever-increasing clientele that it offers extraordinary inducements to get new readers, believing that the great majority obtained will remain permanent subscribers. Papers if they are advantages to the farmer were better understood, and that they may see these advantages we offer the RURAL WORLD to new readers at less than the actual cost of the paper. Every one, therefore, is invited to send in new names at any time at this low price—but preferably two or more at a time. For renewals, however, the price remains at one dollar unless a new subscriber is sent when the two may be received for one dollar.

PERRY CO., S. E. MO.—Wheat is looking well. Stock is doing finely. The only thing we can complain of are poor roads and poor prices for our produce. I would like to have some information regarding alfalfa and what would be the result if it were sown on limestone soil.
JOHN H. BERGMAN.

FLORIDA NOTES.

Editor RURAL WORLD: The strawberry season is coming on rapidly, 20-bushel crates being shipped per night from several shipping points, and by the last of March 200 crates per night will leave the county. Prices range from 20 to 30 cents per quart in the Eastern market. It costs 5 cents per crate for expressing to New York, Boston and Philadelphia, three to New Orleans, and two to Atlanta. Refrigerator cars run to Boston, New York and Philadelphia. Berries carry well in these when quite ripe and charges are eight cents per quart.
Irish potatoes are growing nicely and a larger acreage planted than usual. There has been an abundant rainfall this winter, which insures good crops, for we always have plenty of rain in summer, the only question being as to amount in April and May.
W. E. EMBRY. Dade City, Fla.

OUR LETTER BOX.

Subscribers will please ask their questions as briefly as possible, and on a separate piece of paper. Give full name and address. Answers may be looked for in the department to which they belong, in subsequent issues, if not given with the question.

JERSEY COWS AND COTSWOLD SHEEP WANTED.—A Scott Co., Mo., reader wants to know of someone in Southeast Missouri who has Jersey cows and Cotswold sheep for sale.

KNOX CO., N. E. MO.—I cannot do without the RURAL WORLD. It is as necessary as showers and sunshine to the farmer. If I can be of any use to you in any way let me know.
CHARLES TAYLOR.

WORTH CO., N. W. MO.—I have taken the RURAL WORLD a life time and have gone to its columns many times for information. I am now old and will soon be called from labor to rest. May the God of our fathers bless you and your work.
C. R. MURRAY.

MONTGOMERY CO., ILL.—Fruit promises well. Stock is O. K. and bringing good prices, especially hogs, cows and horses. The man who hasn't anything to sell isn't in it, but the man that has can't complain. I would suggest to the good ladies never to throw egg shells or lemon or orange peeling in the slop bucket. Throw them in the fire and burn them, as they are injurious to hogs.
E. J. FILE.

OUTLOOK FOR PEACHES.—In a letter received from Mr. E. H. Riehl, Alton, Ill., just as we go to press, he states that notwithstanding the claim made by some growers, he regards the outlook for a crop of peaches as being quite promising. He suggests that before pruning careful examination of buds be given and pruning be done accordingly.
Mr. G. BUCHER reports from Jefferson Co., Mo., that all peach buds except Heath Cline seem killed.

ANGORA GOATS WANTED.—Why doesn't someone who has Angora goats for sale advertise in the RURAL WORLD? I know of parties here who want to buy some, but don't know where to get them. I feel more interest in them than in any other stock, and may want to invest in some. There are thousands of acres of hill land in this vicinity, just the kind to keep these beautiful and useful animals on.
Montgomery Co., Mo.
S. M.

VINELESS SWEET POTATO.—In compliance with a request in the RURAL WORLD of March 8 for information regarding the vineless sweet potato, we would state that after growing what is known as the Gold Coin Vineless for four years I find that its tubers much resemble, in size, shape and taste, those of the Southern Queen. It is also similarly white and quite moist when baked. The popular demand for it is, I think, altogether out of proportion to its merit, and seems to have sprung from the liberal advertising given it for several successive years by its introducer. It is with us a light cropper—and is probably a yam.
Coben, Ill. FEEBLES, IHL & CO.

RAPE WITH OATS.—I have read about the value of rape as feed for sheep and hogs, but have never seen any grown and don't know whether it is adapted to Central Illinois. If you think it is I would like to know if it will do so well in the spring with oats to use as fall pasture. What effect would it have on the oats and on the land? Is it of any value as a fertilizer if plowed under when green? How much seed is required per acre?
H. F. HANSEN.

Sangamon Co., Ill.
Read the answer to another correspondent's letter which appears on this page. Oats and rape will not grow together successfully. There are much better crops than rape for plowing under green.

RENEWALS.—Watch the wrapper in which the RURAL WORLD is mailed to you. Your subscription expires with the month named on the wrapper, after your name, and the paper will certainly stop with the close of that month. At our low terms there is no excuse for not renewing if you want the paper. It will be a great convenience to us for subscribers to renew a couple of weeks before their subscriptions expire and will save many mistakes.

Horticulture.

HORTICULTURAL TALKS.

Grafts Breaking Off.—A subscriber writes me that he had persimmon grafts growing finely, when a storm broke them all off but one. He asks whether he can get some more scions. Of course he can. I am always ready to share with the fraternity, even to the "half of my kingdom." The way to save such grafts from loss is to tie a stick to the limb on which the graft is set. Tie in two places in order to have it stiff, letting it extend one foot above the graft. When the graft has grown near the end of the stick the new wood to it with some soft twine or strips of muslin. This will secure the graft. Last summer I lost a graft by a storm (the only one I had) that I would not have taken \$10 for.

Growing Figs in the North.—What has been done can be done again. Last winter, I had covered my trees, as I thought, sufficiently to protect them, but they were dead to the ground, yet they grew up and ripened fruit in the fall. The best way to protect them is to plant them feet apart. In planting let the strongest roots extend crosswise, cutting the others off. In the fall cut these side roots off and lay the trees down, one on the top of the other, pegging them down firmly. Cover them with leaves and then on top put six inches of earth. In this way an Ohio man has grown them successfully and there is no reason why one cannot do it here. I have five new varieties and may stay there. I have a few in candy buckets which I may put into the open ground to be treated as above. There may be no money in this, but lots of fun.

The Past, Present and Future.—A recent letter from a prominent horticulturist in eastern Pennsylvania informs me that the State Horticultural Society there is handicapped for the want of funds, and that the state does not make appropriations which will permit the publishing of reports. They should come out here to the Pennsylvania of the West to learn something. The writer refers to transactions in which I was active and interested 32 years ago. How vividly these recollections come before me and what improvements have been made in our line. To-day, I contend that the Horticultural Society of the State of Missouri is at the head and may stay there. If we continue in the ways of the past, let the young men, girl on their armor and keep up the fight against all our foes, insects, fungi, humbugs, etc. Soon a number of us old fellows will be laid on the shelf from which a book is never lifted; pass through that door that never opens outward; cross the dark river; pass that bourn from which none ever return; gathered to our Father. Others will have to take our places, who may sometimes look back to see what others have done before them. Referring to our Eastern correspondent, we would say, let the horticulturists there stand by their guns and be found fighting in the last ditch. "Die in the harness," as old Father Muench said, and which was truly his case, as he was found dead in his vineyard, with the pruning shears, either in his hand or lying beside him, as I have understood. It is sad that the ruling passion is strong in death and I have observed that horticulturists never lose love for the cause, even if it never made them rich.

Laying Low.—March 1.—There is a foot of snow on the level; no out-door work for the horticulturist, but we can lay out plans for the future that may be carried out, and perhaps not. The planting of trees will soon be in order and to do it properly is important. The main point is to get good healthy trees. See that the roots are exposed to the air as little as possible, unless handled on a damp, cloudy day. Cut all the roots smoothly off where broken in digging. Here let me say that when I dig trees my spade is sharp as a knife, as we have no stones in the ground. Head the top back so as to be in balance with the roots. Have the ground mellow but not wet. A plan that is advisable is to dig the holes sometime before and let in the sunshine and air. Have frequently dug the holes in the fall for spring planting to let the frost enter the soil in the bottom deeper than it ever penetrated before. Holes should be 18 inches deep and for ordinary two-year-old trees, one foot square. Throw the top soil on one side and the subsoil on another. Set the tree so that when allowance for settling is made the soil will stand two inches deeper than it stood in the nursery. Fill the hole with top soil to the proper depth, then set the tree in and throw the mellow earth in, taking care that the roots are all surrounded with it. Press the soil firmly around the roots and when all are covered put on the subsoil mixed with some of the surrounding top soil.

Now the work is done and nothing more will be needed, but keeping the soil well stirred all summer and occasionally pinching out a young shoot that is starting out at the wrong place. This latter may save after pruning. If the trees are sound and the planting done right, there will not be a loss of one in a hundred.

The Enemies' Lurking Places.—In going through my orchards and among the fruit trees, I destroy all the dried fruit that may be still sticking on the trees. I also intend gathering all the rotten apples that are on the ground to bury or burn; also bunches of dead leaves woven together by some web. In these lurk the enemy insects that soon emerge and commit their depredations. A few days ago I scraped all the rough bark off the trunks and larger limbs of my old apple trees. I am sure that lots of insects were exposed to the recent cold weather. These trunks I intend whitewashing with the usual wash with some flour of sulphur mixed with it. It can't be applied with a brush, but with a sprayer. It is faster and not so much work; at the same time some may be shot up among the branches. I have a few hundred pounds of tobacco stems, which will make lots of tea. I intend spraying trees with this tobacco tea as an experiment. Between spraying and jarring I hope to see some of the new plums. Without severe measures there is no use in expecting plums here. I know of but one plum that is proof against the curculio and that is the Golden Beauty. It is a late one, and is so hard during the time the curculio operates that it cannot get its eggs to hatch.

Rats.—This does not sound just like horticulture, but if I had the value of the winter apples that these pests destroy in one winter I think I would be rich. Rats and I cannot dwell in the same house and they seldom remain here more than a few

days. Traps and "Rough on Rats" are my cure. Recently a friend gave me a recipe which is worth trying. He said that after trying traps, cats and ordinary poisons and having failed, he drove off what he did not kill with the following: Take shingles or boards, spread the shingles on them and sprinkle on concentrated lye. The rats will eat the mixture because it is sweet, get sore mouths and die. Those that survive will leave the place. They are almost a curse in this country and the damage they do is immense. Some say cats are the thing to destroy them, but it takes a big courageous tom cat to tackle an old Norway rat and he seldom does it. One rat in one night can so demolish a barrel of choice apples that it disgusts one to handle them. Whole neighborhoods should join in the extermination of rats.

SAMUEL MILLER.

Bluffton, Mo.

THE GARDEN.

Editor RURAL WORLD: At this season there is not a great deal to do in the garden, and yet we can find a few things that will need attention. Not let the chickens and pigs run at large in the garden at this season or any other, as they will tramp the surface on thawing days and you will find the soil heavy when the time comes to work it.

The seedsmen will be sure to send you some catalogs, and as many of these are really works of science and art we can place them on the center table for easy reference. Select a few packages of seeds that must be started early and send them for at once, such as early tomatoes, cabbage, peppers, etc. Before the seeds arrive, if you do not intend to make a hot-bed, secure a few boxes or cans full of loose earth and have ready for the seeds.

Tomatoes should be started early if to make profitable. All small towns or villages can use, to a certain extent, a few early vegetables with profit to the gardener. Tomatoes at five cents a pound are easily sold if one has the first on the market. Why should the farmer go to the store and buy rice, hominy, etc., until the family are sick and tired of such things, when his garden would produce a splendid variety of healthy, luscious vegetables?

Look through the catalog carefully and select all those things that will be successful in your vicinity and give the family a well-stored cellar next fall. It seems to me that if a farmer can load his table with the products of his own farm it is folly to transport any great quantity of his provision from a long distance, paying freight and middle-men's profits all in a heap when he buys. J. O. SHROYER.

Richardson Co., Neb.

WHAT IS A GRAFT?

Editor RURAL WORLD: I answer: A union between a scion and a stock.

What is a scion? Wood of the current, or last year's growth, suitable for budding or grafting. If a person were to order grafts from me when I was in the nursery business I would ask him to explain what he wanted. In the East, we propagate by budding, mainly. The buds were removed from the scion and inserted under the bark of the growing stock, and tied with basswood strings.

I knew nothing about root grafting until coming West in 1888. About the first thing I did in the winter of that year and 1887 was to graft a lot of root grafts. Now the wood of the scion was in no sense different from the wood of the stock used in budding save that the former was matured, and had shed its leaves, while the latter was immature and in full leaf. Now, why should the wood used for budding be styled a scion and similar wood, with the exception named, be called a graft?

WM. MANNING.

Woodruff Co., Ark.

MISSOURI APPLES AT MANILA.

Editor RURAL WORLD: When packing apples in the Osarks last fall for the Paris Exposition (some 25 barrels) we had a great many fine varieties left, and having a son in Manila, we conceived the idea of sending a barrel over for Christmas. These apples were carefully selected and wrapped, packed closely and firmly as possible, and shipped here Nov. 12 by express via San Francisco. There they were transferred to the transport which was to carry the Christmas boxes to Manila, where they safely arrived Dec. 20.

In due time we received a letter from Fred telling of the arrival of the wonderful barrel of apples from the Osarks. He stated that only a very few had specks of decay and the varieties were as perfect as when they were wrapped and packed. This was a wonderful trip for a barrel of apples to make and get through in such fine condition.

We who enjoy apples can realize how Fred felt at seeing apples from his own home that had been so deftly and carefully packed by the members of his home circle. I will bet a big red apple that Fred and his associates had a feast with the apples listed. The Twelfth U. S. Band, of which Fred is a member, all promised to come back this way home and serenade the one who brought the boys at Manila. A. NELSON.

Laclede Co., Mo.

DESTROYING SASSAFRAS SPROUTS. Editor RURAL WORLD: I saw in your valuable paper recently that the venerable horticulturist, Samuel Miller, requests information on how to get rid of sassafras sprouts. I feel that I would rather be an ingrate were I to withhold the desired information from a gentleman from whom I have received so much valuable information from his writings in the horticultural department of the RURAL WORLD. The good wife has clipped out and saved away many of his valuable articles.

If Judge Miller will send his land to Timothy or Timothy and clover, having cut all sprouts below the surface, and mow his grass in July or August, and at the time of mowing again cut all sprouts below the surface, he will not be bothered with them again. I tried it some twenty odd years ago on both sassafras and persimmons, and I have not seen a sprout since the second mowing. This does not refer to stumps that have sprouts, but to sprouts that come up where sassafras and persimmons formerly grew. Some of the land, treated as above described was plowed in the fall of 1888, when my father settled the farm I now own. Often when a boy too small to plow, when the men were plowing the portion of land where the sprouts grew, I, with some other little "niggers," was required to follow the men with axes and cut the sprouts in the bottom of the furrow as deep down as we could. But by the next fall there was Mr. "Blimmon" sprout as vigorous as before.

The land remained in grass until three

years ago, when it was plowed and cultivated to corn and has been in corn for the past three years. I mowed the land and usually fed the hay of the ground, that is, the hay and turned horses, cattle and sheep to the ribs and rarely took them off before the middle of April. I never cut my hay until the seeds had sufficiently formed so the seeds would germinate and by that means kept my meadow seeded from the seed left on the ground. In pursuing this course all of the manure was kept on the ground and it was but little work to scatter that where the stacks stood. This is a digression from the real subject, but I deem it of importance to many who think they must plow and reseed their land to grass. I will add that my meadow was as good as my neighbors' and that never failed to harvest a good crop of grass.

ABRAM NEFF, M. D.

TREATMENT OF YOUNG ORCHARD.

Editor RURAL WORLD: I have 40 acres in apple orchard, the trees being four years old. Have raised two crops of corn and given two bare cultivations, alternately. The first season the trees were planted I raised a crop of corn, the second season gave bare cultivation, the third season corn and the fourth season (1899) bare cultivation. The trees are in fine condition. The entire loss of trees since planting has been only about three per cent. Would I be safe in planting either of the following crops: Broom corn, or sorghum, sown broadcast for hay? A. CONSTANT READER.

Harrisonville, Mo.

Edwin H. Riehl answers the queries as follows:

Although the orchard is reported in fine condition it would have presented a still better appearance if corn was had been grown instead of corn. I would not advise planting corn in an orchard of any age, for what it takes to produce corn will be worth more in apples. Instead of broom corn or sorghum I would sow cow peas. The latter will make better feed than either of the others and instead of taking fertility from the soil they will leave it richer. Cow peas are hard to cure, but even though they may seem spoiled stock will eat it in preference to good clover or timothy. The cow peas in the orchardist's best friend.

ALTON, ILL. EDWIN H. RIEHL.

TREES BY THE MILLION.

One hundred million trees growing on one farm! It hardly seems possible, yet that is what a correspondent recently saw at the nurseries of D. Hill, the well-known evergreen specialist at Dundee, Ill., the largest grower of evergreens in the world. Mr. Hill has built up his enormous business by growing up to every promise made in his advertisements, and in his catalog. He believes that a satisfied customer is the best recommendation, and he has lots of them. It is a well-known fact that there is no more valuable, serviceable and ornamental tree for the farm than a good evergreen; it will resist any drought or exposure and forms a valuable wind-break and protection for orchards and stock. The Minnesota State Horticultural Lecturer says: "Many farms in the northwest have been improved by the planting of evergreens. Mr. Hill issues a good catalog, showing different varieties and describing how best to make them grow. Send for it."

NEW IDEAS.

Some people are satisfied to jog along all their lives in the rut, but others constantly watch for new ideas. The introduction of wheel hoes and seeders was such a marked advance on cultivation methods then existing, that one might suppose any further improvement in the general character of such tools would be impossible. Mr. J. A. Everett, of Indianapolis, Ind., the well-known seedman and publisher, had not put his "Man-weight" line upon the market until a handsomely printed and illustrated catalog explained the name and the tools very fully. The radical departure from

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practical painters say that when they come to repaint a house which has been painted with ready-mixed paint or combination White Lead (so-called), it costs more to prepare the surface than to apply the paint. The moral is to use only Pure White Lead, because it is not only more durable, but is always in good condition for repainting. These brands are genuine.

For colors use National Lead Company's Pure White Lead Tinting Colors. Any shade desired is readily obtained. Pamphlet giving full information and showing samples of colors, also pamphlet entitled "Uncle Sam's Experience With Paints" forwarded upon application.

National Lead Co., 100 William Street, New York.

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Meets the most exacting requirements of all soils for all crops under all conditions. Crushes, cuts, lifts, pulverizes, turns and levels. Made of Cast Steel and Wrought Iron—lasts forever. Light draft; cheapest. Moving Harrow made. Best Pulverizer on earth. Size 3 to 12 ft. B.

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FLANAGAN & PEIRSON, LESLIE, MICH.


POTATOES.

Early Rosewell and Early Golden Wonder. Write for full particulars. Address: J. R. HARRIS, 1111 N. 1st St., Chicago, Ill.

Catalogues Free.

SEED CORN!

"PRIDE OF NISHNA" The largest and finest early variety grown. Makes 80 to 100 bushels per acre on good land; bright golden yellow, ears uniform in size and color; models of symmetry, very deep grain, 16 to 18 rows, usually 18 solid set on small red cob, dries out early and quickly. Fully maturing in 80 to 90 days. In the fall the farmer can leave the corn in the field before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it is a carefully selected and hand-picked, each ear examined, rubbed at the top, and HAND REBLED, cleaned and put into new bags, made for shipping of corn and seed. Our stock was grown especially for seed. It matured early and soundly; was harvested before frost or freeze; it



GONBAULT'S
Caustic
Balsam
A Safe Spledy and Positive Cure

The Safest, Most Reliable ever used. Takes the place of all liniments for mild or severe action. Removes Blisters or Swellings from Horses and Cattle. **SUPERSEDES ALL GAITERS OR FIRING.** Impossible to produce cure or blisters. Every bottle sold is warranted to give satisfaction. Price **\$1.00** per bottle. Sold by druggists, or sent by mail to **THE LAWRENCE-WILLIAMS CO.** for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO., Cleveland O.


purse. Well! again, I don't know, but upon second thought he may be right. It is universally understood that the major associations have long had their hands upon the public purse, and the intelligent compositor evolved from his inner consciousness the corollary, that, as in times past, given the opportunity, history would repeat itself, and he took it for granted that as the concerns were a going business at the old stand, it would only be natural to find them, as usual, "feeling for the public purse." I guess we will compromise on smoke, so, my dear Governor, I hereby authorise you to give him a "good there."

Gentlemen, I have been using your Kendall's Spavin Cure with great success. I bought a horse last January for \$20.00, a year old, that got crippled by breaking the hock, and he was lame in both hind legs. He broke one bone and slipped the joint of his hock, causing Spavin to set in. I tried everything I could, but he would not pull his foot to the ground for three weeks. The man decided to kill the horse; I told him that I would take him at a price, and he said, "Do something with him." I applied your Spavin Cure for two months and have cured this horse sound and well.

If you will advertise this. Please send me one of your horse books, on the Diseases of horses, etc. Yours truly,

after he bought him home, one quarter in 34% and one in 24 seconds. I think Mr. Jarvis does not expect to race Goldquill, but to sell him for a driver or send him east, as he is a nice, level-headed, prompt driver, and if given the chance would be a credit to Kankakee. I have a friend, James A. Bell, of Garnett, Kan., that would like Kankakee's pedigree sent him. He has two mares, one by Alladin and the other by Dominoer, that he says he will send to Kankakee, and I would suggest that you write him.

Mr. Frank Hoover of Columbus, Kan.,



Seabrook, Seabrook Co. Va., Jan. 28, '06.

Gentlemen:—I have written a doubt used 100 bottles of your *Spavin Cure* in the past ten years on my horse with good success. I think it is the best salve for lameness on the market.

I have lost your book, please send me one at once.

Yours respectfully, W. L. PRATT.

Each endorsement as the above are a guarantee of their price. Price, \$1.50 for 98. As a hint for family use it has no equal. Ask your druggist for KENDALL'S SPAVIN CURE, also "A Treatise on the Horse," the book free, or address

W. L. PRATT, SEABROOK, VA.

YOUNG DRAFT STALLIONS
 Or R. H. bull and heifers in exchange for 100 acres of
 clear land in Southern Kansas, rich soil, every acre
 suitable for stock raising. Write for Address.
JACOB THOMAS & SON, Kinn City, Mo.

FOR SALE!

My entire herd of Jacks and Jennets, con-
 sisting of 10 Jennets and six Jacks, all black
 with white point of the best
 breeding. A bargain for some one. Write
FRANK RIVES, Hockinsville, Ky.

Montgomery City, Mo.
M. L. Ayres, Shenandoah, Iowa, Importer and Breeder of
FEBERON HORSES of the best quality. I have
 all ages 35 Stallions, second to none. Will sell
 cheap, about one-half less regular price.

**Before Buying a New
 Harness**

Read 5 cts. in stamps to get postage on descriptive cat-
 alogue 100 styles of single and double **cut-reinforced**
 leather harness. Free to all. Write to **W. C. KUMMER**
 catalog at wholesale price. We can save you money by
 writing to us. **KUMMER HARNESS MFG. CO.**
 Green St., Owego, N. Y.

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Home Circle.

IT PAYS.

It pays to wear a smiling face
And laugh our troubles down.
For all our little trials wait
Our laughter's magic of a smile
Beneath the magic of a smile
Our doubts will fade away,
As melts the frost in early spring
Beneath the sunny ray.

It pays to make a worthy cause,
By helping it, our earnest youth,
To give the current of our lives
A true and noble tone.
It pays to comfort heavy hearts,
Oppressed with dull despair,
And leave in sorrow-darkened lives
A gleam of brightness there.

It pays to give a helping hand
To eager, earnest youth,
To note with all their waywardness,
Their courage and their truth;
To strive with sympathy and love
Their confidence to win and love
It pays to open wide the heart
And "let the sunshine in."
—The Christian Press.

Written for the RURAL WORLD.
JUST "JIM."

He was the handsomest boy in the High School when he entered the senior class and one of the best. "He was the only child of his mother and she was a widow." I suppose another "Jim" of much smaller size and fewer years once said—his "other name was James," but his mother called him plain "Jim," but no mother with love in his heart could ever give the tender refrain touch to this brief name that his mother did. "Jim" was a favorite with everyone; his friends were numerous, and he was kind to his mother or something like that. One fine day, three times his age, who had a son 20 years old, said of Jim: "I should think his mother would love to him; he is so brave, so true, so loyal to her, and such a good boy in every way. I never see him that I do not mentally bow the knee to him, he seems of such royal lineage."

His mother intended him for the ministry, but there were other plans for him, occult plans of which the mother did not dream. Jim went fishing one day with a few of his young friends, and none of them knew of the deep, direful mantrap right in the center of a place where it seemed as if the swimming would be perfect. The boys all went in. Jim was the first to find this hole and down he went. After a few moments he came to the top struggling. A companion rushed to the rescue and both disappeared. The others went about the business of saving their friends more warily. A good swimmer watched for the reappearance. Jim came to the surface first; his friend clutched his hair and just as he was sinking again, and swam shoreward. It was only a few yards to shallow water. Two comrades took charge of Jim's limp form and the swimmer got the other lad out before he had entirely lost consciousness.

The boys were intelligent High School students; they rolled Jim's body over a smooth log; they rubbed him vigorously and were rewarded by having him come back to life again. The gratitude of the mother was boundless. Jim is now studying law in a city university. He is also editor of the university paper. He has had the honor of an interview with the author of "Richard Carvel." A fine career is opening out before him, yet to his mother and friends he is just "Jim."

MAY MYRTLE.

Written for the RURAL WORLD.
ANOTHER VOICE FOR THE BIRDS.

You have made me feel so cozy in the Home Circle that I can't resist the temptation to drop in this stormy evening and chat awhile.

I witnessed a beautiful phenomenon during the storm last night (Feb. 27). The trees were mailed in sleet and the snow was falling in fine, sharp particles. While removing some plants from the window about midnight my husband remarked: "There's a strange light shining among the trees. Come and see it." I went to the window and beheld a beautiful sight. Whether it was caused by an Aurora Borealis playing about the stratum of snow clouds or flashes of lightning breaking from them and refracted by the icy snow flakes I cannot tell, but it seemed as if ranks of luminous shapes were rising from the earth and floating upward. It was a weird and lovely sight.

"It looks like the restoration of the glorified dead," I remarked. What a pity that so many of Nature's beautiful phenomena occur at night when we are usually sound asleep!"

I am glad so many people are taking up arms—or, more correctly, laying them down—in the cause of our wild birds. In my youth the woodlands surrounded my home, and wild birds were plentiful and so close. In spring the blue birds, martins, robins and orioles flitted among the trees. In summer, wrens, thrushes, meadow larks, humming birds and many other varieties took their abode among groves and orchards, while all the year round quail, doves, red birds and saucy blue jays abounded. Those admirable cultivators of man's savage instincts, viz., the air gun and cat were unknown and though boys occasionally threw stones at their feathered friends they seldom hit them, while when men went gunning they had bigger game in view than tom-tits! Our spring-house was among big oak trees a long distance from the house. There I was often sent to do the churning when mother was busy elsewhere. It was very solitary work. I would entertain myself by repeating Moore's "Fire Wreath" and "The Veiled Prophet," Byron's "Ode to Albatross," etc., until I grew tired and then I'd whistle for the birds. And they'd come—dozens of them! All kinds of them fluttering around and such a concert as we'd have! How I've grieved over the ruthless warfare waged against them in later years.

I've always had a warm regard for Gen. Farrar, because when he lived out on a country place, near here, some years ago, he made his grounds "cities of refuge," as it were, for my beloved and sorely beset little friends of the forests; so true it is that,

"The bravest are the tenderest!"

The trouble, now-a-days, is that if one encourages wild birds to stay around and hear their shy ones they only become easier prey for the boy—or worse, the man—with the gun, like Billy Birdwood's luckless grandpa. Ever since I have lived in Norway, many some red birds have come every winter, during severe weather, to the yard to eat the grain I place out on an old stump for them. But every year the num-

ber grew smaller, until now there is but one. To tell the truth in those days when birds were as plentiful as war correspondents are now, they did eat a good many cherries and pecked the finest apples on the Early Harvest trees, but then one could swallow the fruit that remained with relish. One could eat cherries whole, if so inclined, without a squinty sensation at the pit of one's neck, or sink one's teeth in an apple without fearing a wriggling worm!

But I am letting myself forget that I'm liable to crowd space that some other sister could fill far better, so I must stop. I can't leave, however, without saying that the picture the RURAL WORLD gave, in a recent issue, of Mrs. Mary Bingham is lovely. I would like her for a friend, for I think she would be a faithful one.

Thank you, Idyll, for your complimentary remarks. I can return them with perfect sincerity for our mutual friend, dear Nina, read some of your poems to me which were poetic gems. And Nina! to tell of our girlish squabbles "right out in the moon"—now do you think it was fair? I fear my reputation for amiability will suffer unless you keep "mum!"

Rosa Autumn, I hope you will be able to pay that visit to your former home this summer. Your account of your natural hammock of grape vines was like a picture of my own girlhood days. I enjoyed reading your letter very much and hope you'll write another soon.

Cousin Margie, haven't we good reasons to suspect you are a fraud? I think "Mollie Mabel" could tell us something about you!

"Wife of Sorghumite," we have an interest in common. I dislike that kind of sweetness also!

Now, Mr. Editor, don't I'm gone!

MRS. A. K. CODY.

St. Louis, Mo.

A PLEA FOR FLORAL DECORATION.

Editor RURAL WORLD: The February number of the well-known "Ladies Home Journal" contains two pages of striking pictures of family gardens as they are so frequently met with in the older New England States. These gardens surround the homes of plain and unobtrusively unpretentious people, who, horticulturally speaking, not on berries and apples alone, but enjoy, likewise, the mental food and inspiration imparted by beautiful flowers, graceful, blooming vines and shrubs. This enjoyment which can be freely had by the culture of plants is within the reach of everyone. No costly palms and exotic bedding plants enter into this domain of popular floriculture. Let the suburbs of the city enjoy to their heart's content the costly novelties of the greenhouse and conservatory. Country people are satisfied with the flowers of the open ground, hardy perennials and annuals in almost endless variety, many of which will be fondly recollected as having a place in mother's and in grandfather's garden. All that is wanted is a determined will to have them growing around the homesteads of this country.

The richly illustrated, descriptive catalogs of many leading horticultural firms, both of the nursery and floral trade, can be had for asking and for remittance of a few postage stamps. From these a world of reliable information can be gathered. All practical purposes, of course, of botany and horticulture to the contrary notwithstanding.

It will be seen that a few dollars judiciously invested in seeds and plants will do wonders in the ornamentation of our home grounds. A few of the lovely flowers thus secured can be set out by loving hands on the mounds of the departed dear ones of the family circle. The grave yard will thus be touched by the hand of modern civilization. Some can be taken over to the school yard to be planted where piles of rubbish and ashes now are.

Surely a few resolute women banded together in a school district for the remodeling of the school grounds could do wonders in a line of progression so often discussed by the press and a few visionary horticulturists and similarly kind-hearted people. So long as the men are too busy (as a harsher term not advisable here), the only hope must be centered in the mothers, aunts and sisters of the youth educated in our public schools. Will some one of the Home Circle sisterhood take up the subject and let us hear her voice?

JACOB YOUNG.

St. Louis, Mo.

Written for the RURAL WORLD.
JUST FOR A SHORT CALL.

Dear friends, may I come in a few moments and give you my greeting for this year of 1900? I feel a little timid, it has been so long since I have visited you, but as some of the old friends have been kind enough to remember and inquire about me, I will say, I am still here, in the same corner of the same room of the same "old castle on the hill." For over twenty years now I have not been off the place, and for more than half that time not out of the house, and scarcely off my bed; still I am able most of the time to sew, read, write and do many things of myself and others. I have the use of my hands and eyes, for which I

REMNANTS OF SILK RIBBONS ALMOST FREE

We have purchased, at a very low price, large lots of remnants of silk ribbons, of various widths, colors and patterns, and are now offering them at a very low price. We have a large stock of remnants of silk ribbons, of various widths, colors and patterns, and are now offering them at a very low price. We have a large stock of remnants of silk ribbons, of various widths, colors and patterns, and are now offering them at a very low price.

Our stock of silk ribbons, from which we put up these packages, consists of Crown, Gros Grain, Moire, Pique, Satin, Silk, Brocade, Striped, and various other styles of Ribbon and Fancy Silk Ribbons, all of which are of the highest quality and at very low prices. We will enable our customers to select from our large stock of remnants of silk ribbons, of various widths, colors and patterns, and are now offering them at a very low price.

We will send 1 package for 35 cents, or 36 cents in three packages. Carefully packed in boxes, postpaid, upon receipt of price. Address: PARSY RIBBON CO., Box 3045, New York City, N. Y.

am most thankful, and they are busy most of the time. I enjoy reading the letters you write very much, also those on the first page of our dear old RURAL WORLD. I hope this present year may prove a happy and prosperous one to you all, and that none of you may have burdens that are heavy or hard to bear. May the Dear Lord keep us all "in the hollow of His hand." PAULINE.

Madison Co., Ill.

OUT OF THE HORSE LOT

Into the Door-Yard.

Editor RURAL WORLD: In a recent number The Wife of Sorghumite did me the honor to ask my whereabouts and had the courage of her convictions to express a liking for my rambling, scrambling, disjointed and sometimes chaotic expressions—possibly in the minds of great persons like Bloom, I suppose. However, that is neither here nor there. Lives of great men oft remind us that there's more in front than there's behind us; so we would better look ahead than to the rear. From my earliest remembrance woman has been my best friend. My mother was the first, and the one I call wife has made life one glad, sweet song. Twenty-eight years ago to-day our first born son came to us. Four years ago to-day we consigned him to the tomb. A coincidence of his life was that he was born on Tuesday of a leap year and died on Tuesday of a leap year and was buried on the anniversary of his twenty-fourth birthday.

Don't let the women of the Home Circle get "galled." This is no coil who has "exceeded the impand of the impound and is scatterplasticating all over the equanimity of the horse lot," but a sedate old Dobbin, who found the "bare" down and crawled through. If I live to see March 7, 1900, sixty-three years will have frosted my venerable locks. I have been in the active practice of medicine for 43 years, in country towns, and my women friends are counted by thousands. My experiences have been varied more than usual. My travels have extended entirely around the world. The extremes of temperature, plenty and want, light and shadow, ease and severe labor, with all the vicissitudes of life imaginable, have been mine. Yet with it all I am ever cheerful, optimistic and prone to look on the bright side of everything, confident that a loving Father in heaven, who doeth all things well, will ever have us in His kindly care. Promising not to "stray" again, I am, ever faithfully,

ARTHUR J. BUCKNER, Jr.

"(Mambrino, Jr.)"

Peakeville, Mo., Feb. 27, 1900.
The Home Circle readers should make their best bow to Idyll and Wife of Sorghumite for enticing Mr. C. D. Lyon and Mambrino, Jr., to visit this department. Come again, brothers, but don't stop too high because of what Wife of Sorghumite said about the nice letters on the first page.

THINGS TO FORGET.

"If you would increase your happiness and prolong your life, forget your neighbor's faults. Forget the slander you have ever heard. Forget the temptations. Forget the fault-finding and give a little thought to the cause which provoked it. Forget the peculiarities of your friends and only remember the good points which make you fond of them. Forget personal quarrels or histories you may have heard by accident and which, if repeated, would seem a thousand times worse than they are. Blot out as far as possible all the disagreeables of life; they will come, but they will grow larger when you remember them and the constant thought of the acts of meanness or worse still, malice, will only tend to make you more familiar with them. Obliterate everything disagreeable from yesterday; start out with a clean sheet for to-day and write upon it, for sweet memory's sake, only those things which are lovely and lovable."

Prune Whip—A most dainty and delicious dessert for this time of the year is a prune whip. Soak a quart of prunes over night; cook slowly in a little water until soft; put through a potato ricer, sweeten and beat into a well beaten white of an egg, with a little vanilla and serve with whipped cream, after it has been thoroughly chilled.

Poultry Yard.

WHEN ADVERTISING PAYS.

Editor RURAL WORLD: Having sold more poultry and eggs from an advertisement placed in the RURAL WORLD last year than from all other papers combined, I will send you another ad. The RURAL WORLD is read by the farmers and their wives, who do not read the poultry journals much, and are not so enthusiastic in regard to poultry as are the farmers, but a great many of them are seeing the mistake in breeding scrubs, and want to improve their stock. This makes a good demand for eggs, poultry, etc., at reasonable prices. I am better prepared this season than ever to supply the demand.

MRS. F. H. HANSELL, Kearney, Mo.

TOO MANY ROOSTERS.

Editor RURAL WORLD: There are many ways in which we waste feed and lose money on the farm, and in none more than in keeping too many cocks and cockerels. It is not so much in the amount they eat as in their influence on the egg basket and general disposition and health of the flock. I have tried keeping a pen of pullets with a cock and one without—all being of the same flock and age and having the same feed and treatment generally. The result surprised me no little. I got 50 per cent more eggs from the pen without the cock than from the pen with him. In the pen without the cock the hens were contented, gentle and nearly always singing, while in the other pen the difference in disposition was easily seen. The hens seemed to require more feed and were much less satisfactory to handle. There were as many broody hens in the pen without the cock as in the one with him.

Infertile eggs will not rot. They may become added in hot weather by rough handling breaking up the yolk and thus be spoiled; but if kept in a cool place an infertile egg may be kept indefinitely, although it will dry up, and may become unfit for use by the absorption of foul odors.

My wife says the infertile eggs are much better for cooking than the fertile ones, and that she can tell the one from the other by the general appearance after it is broken.

The number of cocks and cockerels to keep depends upon the breed one has.

One good, vigorous (none other should be kept) Leghorn or Minorca cock or cockerel is sufficient for 25 to 30 hens; one Plymouth Rock to 30 to 40 hens; one Wyandotte or Langshan to 25 to 35 hens; and the Cockerels one to 10 to 25 hens; and for Light Brahma one to 20.

But the better plan is, a pen with plenty of room, say a yard 25 by 25 feet, a house 15 by 12, the room in one corner and the floor covered with litter and the nest boxes under the dropping boards.

Then keep a dozen or more of the best pullets and a cock, or fifteen or more one or two-year-old hens and the best cockerel on the place in each pen. Feed what is possible in the litter and make the fourth watch for it. If no wheat is to be had feed oats, table scraps, vegetables (don't cook the potatoes, or feed greasy dishwater or soured dough or bread), or if nothing else is to be had feed corn, and if too busy (or lazy) to prepare grit, throw the cinders and ashes from the coal stove into the pens and the hens will get their own grit.

I have about 140 pullets and hens and there are but three cockerels and one cock. Two of the cockerels are in single coops awaiting a purchaser. The other cockerel is mated to a lot of fine hens and the rook to a dozen pullets. The other 100 or more hens and pullets are enjoying life and the freedom of the farm.

Vernon Co., Mo. C. A. HIRD.

GREAT POULTRY OPERATIONS.

H. R. Kandelick, New Orleans, purposes having one of the largest poultry farms in the world. Although now well stocked, he will install 55 new Prairie State incubators capable of adding to his big flocks about 16,000 chicks every third week. In Georgia, State Senator White, at Smyrna, has bought ten of these incubators and G. M. Clark & Co., at Kensington, ten of the same. These will be among the largest poultry operations in this country. All their apparatus, incubators, brooders, etc., were made by the Prairie State Incubator Co., Homer City, Pa. The Prairie State Company's works are very busy at present, indicating an unprecedented activity in chicken-breeding and chicken raising. Their November and December sales were 3,125 machines; January, 2,227, and February is expected to show about 3,000. The Prairie State Co.'s exhibits at the late poultry show held in Boston and Madison Square Garden, New York, drew enormous crowds of intensely interested people. The 2,000 chickens hatched at Boston were the most attractive of all things at the New England show. Our readers later, in the November and December issues of the RURAL WORLD, will find the Prairie State Incubator Co., Homer City, Pa., for their 23-page catalog. It contains fifty colored plates and a large number of photo-engravings showing the model poultry farms of America, and fully explaining their new appliances.

MRS. J. A. JOHNSON, Prairie Home, Cooper Co., Mo., says in a letter just received: "I am very much pleased with the RURAL WORLD as an advertising medium; it brings inquiries from all sections of the country and lots of them. I am making good sales, and customers, so far as heard from, are well pleased. I have a nice lot of turkeys, some that have been secured by Judge Wale, also cockerels yet for sale, which I am offering at bargain. Judge Wale was here Feb. 20, and mailed our yards."

THE FOWL HOUSE.

Editor RURAL WORLD: On farms where mixed farming, as it is called here in the East, is practiced the barn is one of the best places to keep the chickens. Ducks should have a separate house and turkeys a shed of their own, or a clump of evergreen trees in which to roost. But the chickens will thrive and lay immensely if they can run in the cattle sheds and work over the litter and pick up waste grain. A farmer friend of mine kept a flock of nearly 100 hens in his barn this winter and up to the middle of January had not fed any grain whatever, and his Plymouth Rocks were in fine condition. Not only do the hens save grain otherwise lost, but they take plenty of exercise, one of the greatest aids in producing eggs.

The best allotted to the hens should, if possible, face the east or south, that the sun may warm the interior during cold, winter weather. If lined with black Neponset building paper it will be free of mice and quite warm. The roosting room need not be large as the fowls will be in the sheds during the day, and it will not harm them to be crowded a little at night.

There is no danger of vermin troubling the stock if the fowls' room is kept clean and as heard from, are well pleased. I have a nice lot of turkeys, some that have been secured by Judge Wale, also cockerels yet for sale, which I am offering at bargain. Judge Wale was here Feb. 20, and mailed our yards."

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Infertile eggs will not rot. They may become added in hot weather by rough handling breaking up the yolk and thus be spoiled; but if kept in a cool place an infertile egg may be kept indefinitely, although it will dry up, and may become unfit for use by the absorption of foul odors.

My wife says the infertile eggs are much better for cooking than the fertile ones, and that she can tell the one from the other by the general appearance after it is broken.

The number of cocks and cockerels to keep depends upon the breed one has.

PRESERVING EGGS—Saxony has been officially testing the keeping qualities of eggs under various preservatives. The first prize in the section for cooking eggs was awarded to specimens which had been preserved in a solution of silicate of potassium. The eggs had been dipped in warm lard and then allowed to cool with the lard on them, after which they were placed in a solution of 6 lb. silicate of potassium and 6½ gallons of water. The yolks, whites and flavor were found to be perfect, and there was no loss in weight. In the second section for table eggs, the first prize was also awarded to specimens of silicate of potassium. The appearance of these successful samples was such as rendered them indistinguishable from newly-laid eggs, and on breaking the shells the yolks and whites were of normal consistency, and the flavor good. The process of preservation had consisted in washing the eggs with a brush and then placing them in an air-tight box containing a 10 per cent solution of silicate.

MISS JESSIE JOHNSON, Walnut, Kansas, will have in charge part of Mrs. W. B. Brite's poultry, on account of Mrs. Brite's poor health. She will sell eggs at high scoring prices. Write her for prices at once. Mrs. Brite has for sale 25 fine B. P. Rocks, 10 extra fine Cockerels, and 100 White Wyandottes. Write her for prices at once.

MRS. F. H. HANSELL, Kearney, Mo., purposes having one of the largest poultry farms in the world. Although now well stocked, he will install 55 new Prairie State incubators capable of adding to his big flocks about 16,000 chicks every third week. In Georgia, State Senator White, at Smyrna, has bought ten of these incubators and G. M. Clark & Co., at Kensington, ten of the same. These will be among the largest poultry operations in this country. All their apparatus, incubators, brooders, etc., were made by the Prairie State Incubator Co., Homer City, Pa. The Prairie State Company's works are very busy at present, indicating an unprecedented activity in chicken-breeding and chicken raising. Their November and December sales were 3,125 machines; January, 2,227, and February is expected to show about 3,000. The Prairie State Co.'s exhibits at the late poultry show held in Boston and Madison Square Garden, New York, drew enormous crowds of intensely interested people. The 2,000 chickens hatched at Boston were the most attractive of all things at the New England show. Our readers later, in the November and December issues of the RURAL WORLD, will find the Prairie State Incubator Co., Homer City, Pa., for their 23-page catalog. It contains fifty colored plates and a large number of photo-engravings showing the model poultry farms of America, and fully explaining their new appliances.

MRS. J. A. JOHNSON, Prairie Home, Cooper Co., Mo., says in a letter just received: "I am very much pleased with the RURAL WORLD as an advertising medium; it brings inquiries from all sections of the country and lots of them. I am making good sales, and customers, so far as heard from, are well pleased. I have a nice lot of turkeys, some that have been secured by Judge Wale, also cockerels yet for sale, which I am offering at bargain. Judge Wale was here Feb. 20, and mailed our yards."

THE FOWL HOUSE.

Editor RURAL WORLD: On farms where mixed farming, as it is called here in the East, is practiced the barn is one of the best places to keep the chickens. Ducks should have a separate house and turkeys a shed of their own, or a clump of evergreen trees in which to roost. But the chickens will thrive and lay immensely if they can run in the cattle sheds and work over the litter and pick up waste grain. A farmer friend of mine kept a flock of nearly 100 hens in his barn this winter and up to the middle of January had not fed any grain whatever, and his Plymouth Rocks were in fine condition. Not only do the hens save grain otherwise lost, but they take plenty of exercise, one of the greatest aids in producing eggs.

The best allotted to the hens should, if possible, face the east or south, that the sun may warm the interior during cold, winter weather. If lined with black Neponset building paper it will be free of mice and quite warm. The roosting room need not be large as the fowls will be in the sheds during the day, and it will not harm them to be crowded a little at night.

There is no danger of vermin troubling the stock if the fowls' room is kept clean and as heard from, are well pleased. I have a nice lot of turkeys, some that have been secured by Judge Wale, also cockerels yet for sale, which I am offering at bargain. Judge Wale was here Feb. 20, and mailed our yards."

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Poultry Yard.

WHEN ADVERTISING PAYS.

Editor RURAL WORLD: Having sold more poultry and eggs from an advertisement placed in the RURAL WORLD last year than from all other papers combined, I will send you another ad. The RURAL WORLD is read by the farmers and their wives, who do not read the poultry journals much, and are not so enthusiastic in regard to poultry as are the farmers, but a great many of them are seeing the mistake in breeding scrubs, and want to improve their stock. This makes a good demand for eggs, poultry, etc., at reasonable prices. I am better prepared this season than ever to supply the demand.

MRS. F. H. HANSELL, Kearney, Mo.

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The Value Of Reputation.

A reputation based on half a century's experience, dealing directly with the women of the family all over the world, is unique, and stimulates a worthy pride. THE SINGER MANUFACTURING COMPANY aims to maintain its well-earned reputation for fair dealing during all time. It is permanent, its offices are in every city of the world, and parts and supplies for its machines can always be easily obtained.

Sold on instalments.
Old machines taken in exchange.
The Singer Manufacturing Co.,
"Sewing-Machine Makers for the World."

INCUBATOR SATISFACTION.
That is what we want. We want you to be satisfied with your incubator. We want you to be satisfied with your incubator. We want you to be satisfied with your incubator.

SEELY'S DUCKS.
Pekin Ducks, profitable to propagate. If you're looking for quality don't fail to place your order for eggs at once. Seely's Ducks are the best. Seely's Ducks are the best. Seely's Ducks are the best.

QUENTANY INCUBATOR.
This machine will hatch every fertile egg, and is the best. It is the best. It is the best. It is the best. It is the best. It is the best.

VICTOR INCUBATOR.
Hatches all the fertile eggs, is simple, durable and easy to operate. It is the best. It is the best. It is the best. It is the best. It is the best.

EDGEBOCK POULTRY YARDS.
Buff and Barred Plymouth Rocks. Stock and eggs for sale. HENRY RIEHL, Maplewood, Mo.

WOODLAWN POULTRY FARM.
Six varieties of high scoring poultry. Circular free. J. BAKER SAPP, Clayville, Mo.

PRAIRIE HOME POULTRY YARDS.
Bronze Turkeys, La. Brahmas, Silver, Golden and White Wyandottes. Circular free. MISS J. A. JOHNSON, Prairie Home, Cooper Co., Mo.

SPRING HILL POULTRY FARM.
Mammoth Bronze, White Holland Turkey eggs 25c each. Buff Cockerels, Buff, White and Barred Rocks. Buff Cockerels, Buff, White and Barred Rocks. Buff Cockerels, Buff, White and Barred Rocks.

OAKLAW GRANGE.<

TRY Allen's Lung Balsam

FOR THAT COUGH

Wherever you find it pleasant and safe remedy to give your children for whooping cough and croup.

All Druggists Sell It.

Ask for ALLEN'S LUNG BALSAM and be sure you get it. Price, 25c, 50c, and \$1.00 a bottle.

IF YOUR CHICKEN NETTING

don't fail, try Page's Netting. It's better.

PAGE WOVEN WIRE FENCE CO., ANDERSON, NICH.

WE WANT AGENTS

In every locality to sell the

KEYSTONE WOVEN WIRE FENCE.

Indestructible, made of heavy wire, 10 years

guarantee in made. It is constant use for

10 years and more. It is constant use for

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The Pig Pen.

COST OF FEEDING PIGS.

The Wisconsin experiment station has proven that a pig weighing 100 pounds requires one pound of corn meal and a half-pound of wheat middlings to keep it alive without gain or loss. Three pounds a day of the same feed would make a pound of pork, and if the grain costs \$20 per ton, the pork would cost 4 1/2 cents a pound, and if he could eat six pounds a day he would gain two pounds at a cost of three cents a pound.

A hog weighing 500 pounds needed five pounds of grain feed to keep him alive, and eight pounds to increase his weight one pound a day. This would make the pound of pork cost eight cents. These figures are for good, thrifty hogs of good breeds and are approximately correct, and they show very nearly the economy of killing hogs before they weigh 200 pounds if they can be made fat. But the profit on hogs to the farmer in the west is not so much in the gain from grain feed as that the hog turning unsalable products and the wastes of the farm into that which sells readily for cash.

PALATABILITY OF RAPE FOR SWINE.

In a letter received from a farmer in New York state he asks how swine could be induced to eat rape. He said that he had grown rape last summer and when he had cut and fed the same to his pigs they would not eat it. This is not an uncommon experience, says Prof. Thomas Shaw. Swine do not know, of course, the taste of rape when they have not previously eaten it, and the same is true of sheep. Both swine and sheep will accept of rape if it is fed at first, but if allowed access to it for a few days they become exceedingly fond of it. It should be remembered, however, that there is a time in midsummer when the weather becomes very dry that rape is not nearly so palatable as at other seasons. If it gets in that condition which may be characterized as withy, which it does sometimes in time of prolonged drouth, its palatability is much lessened. Rape is not really a midsummer pasture in the best sense of the term, although if fed off early enough it will make a good pasture, even in hot weather. Farmers need not have any misgivings about sowing Dwarf Essex rape to make a pasture for swine. They will find the plant of untold value and they may sow any time from the opening of spring until the end of July, thus providing pasture all the season. This may be done where the conditions are favorable. There need be no anxiety about the pigs refusing the rape. They have been known to leave grain while feeding upon it to feed upon rape.

SUGAR-CURED BLUEGRASS HAMS.

Haven't you all been disappointed in having a large, nice, thin slice of old ham put upon your plate to find it too salty or too strong to eat? Oh, what a disappointment, and yet it is often so in the best regulated homes. This recipe I give you was one used with unvarying success for years. I have found the use of powdered borax on meat the best way to keep saltiness from other meats from it. When the meat is taken up to be dried I wash it in clean, hot water and while damp I sprinkle powdered borax all over the flesh side of every piece and you need have no further fear of insects, although my hams hang in the smoke house till cured without even a sack on them. If the summer is very dry I rewash and put more borax on in July and August. It preserves the meat from taint. Each ham may be tied up in a canvas or paper bag, or it may be left hanging in a dry, cool place and when wanted for use will be found in excellent condition. Farmers' Home Journal.

MANUFACTURING HOGS.

There is no such aggravating sight to the hog manufacturer as to see sows emerge from their winter quarters hairless in spots, covered with scurf preventing the healthy evaporation of the skin. Why not? Because the left half of the hog house is filled, and sheds are filled with bedding material, having a two-fold mission—warmth of building and healthful beds. He takes no stock, says a writer in "National Stockman," in the theory that the hog or the other kind of straw is the cause, he knows that it is the foul and heated bed, mixed with manure accumulation from early winter until spring. Nor does he fail to have in store roots for succulent food. Their cost is but trifling but their effects are of enhancing value. On business principles he lays in store during the winter the by-products of the mill as shorts, middlings, at a profit in exchange for oats and corn and other grain. When mills are overburdened with by-products he lays in a supply to be ready to run his manufacturing plant at its full capacity when the consumers arrive, when the farm work shop requires the labor of teams and men. His hoar or hoar (on their well-being hinges most of the success of the plant) are not forgotten because their service is disposed of for a season. They have been selected and bought from responsive breeders, who takes pride in filling an order accompanied with an intelligent description of points desired and defects to be corrected. Nor does he discard a sow each year, any more than the tested sows that are perfected by age to full sizes and constitutional vigor, as long as he can avoid inbreeding, increasing the visible improvement in his offspring to head the herd in future with good breeding.

YOU can buy a chimney to

fit your lamp that will

last till some accident hap-

pens to it.

Macbeth's "pearl top" or

"pearl glass" is that chimney.

You can have it—your dealer will

get it—if you insist on it. He may

tell you it costs him three times as

much as some others. That is true.

He may say that they are just as good.

Don't you believe it—they may be

better for him; he may like the breaking.

Our "Index" describes all lamps and their

proper chimneys. With it you can always order

the right size and shape of chimney for any lamp.

We mail it FREE to any who write for it.

Address MACBETH, Pittsburgh, Pa.

sows. Facts, practice and observation have long since convinced him that immaturity causes deterioration, knowing well that care and feeding will not alter nature's rigid laws, but that they will add to perfect the attainments. While the heads of the herd, isolated in their paddocks or yard with comfortable shelter, they enjoy the change of dry, clean beds, they are not obliged to subsist on corn and water, but have a variety of food in judicious quantity and eaten with relish. The trough never represents an larder, as so frequently met with. His hoar emerge from winter in vigorous stock condition.

BUNCHES ON HOGS FROM CASTRATION.

These unsightly and serious deformities come from cutting or breaking the cord too close to the testicle, which will not heal. The outer covering heals over it and the tumor is formed, writes J. I. Boyer in the "Western Swine Breeder." There is no way to treat these tumors that I have any knowledge of, except to amputate. This is a very simple operation, especially when the bunch is small. I cut a loop in the bunch so that I can get a good hold of it with my finger, then cut around the tumor under the skin, as it is grown fast, pull any skin around it, being careful not to cut or break the cord, but peel down close to it and carefully get hold and pull it out. If it is large it seems more like butchering than anything else, but I have never lost a case and have taken them out eight inches in diameter. It just takes a little nerve and care and if done in time it is a small affair, which must be done as the pig is valuable as he is. Cutting it open only stimulates the growth. I have seen large bunches of hogs ruined by cutting off the cord close to the testicle. I practice pulling the cord out. It is severe, but humane in the end.

THE SUCCESSFUL FEEDER.

The man who stands by the hog all the time is the one who knows how to make the business pay, and here are some of his methods: He has good, well ventilated shelter for his hogs by the time cold weather arrives, or in the event of hard, cold storms. He feeds at regular hours; his troughs are always empty when the hogs have finished their meals; yet they show signs of having had enough. He has a feeding floor, and keeps it clean. He has provided pumpkin squashes for his hogs, for he knows that the connection with grains these things have nutritive value that the chemist does not give them credit for. He knows how much his hogs are paying for his corn and other feed, and knows that he ought to sell them when they do not pay the market prices for it, at least. His hogs are not wasting flesh rooting in the ground for alkalies to aid digestion, for he sees to it that salt, charcoal and ashes are within easy reach all the time. He has his fall litters separate from the spring pigs, and feeds the first milk and a mixed ration that will develop bone and muscle, and not fat, which is not what they want to lay on at this stage of the game.

He has rye for late fall and early spring pasture, and his brood sows, old and young, are separate from other hogs, that they may receive the food and care they need in their special business. He gets well paid for his labor in the manure he saves and applies to his fields, and that would be lost to the farm if his feeding stuffs were sold away from him. He is delighted with high prices, of course, but when they are low he falls to see any market that will pay him better for his produce than well-fed and well-cared-for hogs—Farm, Stock and Home.

"ITEMS OF INTEREST TO CORN GROWERS."

Furnished us by Nims Bros., Emerson, Iowa, seed corn specialists, who advertise in this issue, page three:

In our 25 years of practical observation and experience as to best methods to secure the largest yield of finest corn we summarize a few of the most important.

First—Strive to get soil into a condition of fertility that will enable it to produce not less than 50 to 100 bushels per acre. This can be done by proper rotation and fertilizing, such as resting the land in clover, or pasturing, or both.

Second—Get land in perfect tilth by plowing and discing and harrowing. Do not wait until the soil is too hard to plow, nor working it while wet and soggy. One of the most common mistakes made by corn growers generally is that of plowing and neglecting to harrow down fine all that was plowed each half day. If we neglect to harrow as we plow, the lumps that would be easily pulverized soon dry into hard clods and become non-productive.

Third—Use none but thoroughbred corn for seed. Thoroughbred corn is produced by most careful selection for a long period of years, with a view to produce the highest ideal type of corn. This ideal is obtained by the same principles as ideals in stock breeding are produced, using only the highest ideal obtainable as seed stock. Such is the Legal Tender Yellow Dent we offer for seed.

Fourth—Plant carefully about May 15. Do not plant deeper than 2 1/2 inches if the seed bed is fine. This will insure early germination if the weather is favorable. If the soil is dry, use the harrow early and often, so as to kill all weeds in the infancy. The after cultivation should be such as is best suited to keep down weeds, and keep the surface finely pulverized. It is expecting too much of the soil to grow a crop of weeds, and at the same time produce a full crop of corn.

Study the habits of the corn plant as you cultivate.

Seek to know the reason for each step in the production of a corn crop.

USE GOOD SANITARY MEASURES.

It is said that "an ounce of prevention is worth a pound of cure." Keep all feeding floors, sleeping pens, and troughs clean, says A. J. Lovejoy. Use a good disinfectant, and use it often. Air-slaked lime is good, scatter it around and use plenty of it. At our farm we use chlorophane. It can be purchased in any quantity, and should be diluted with from 10 to 100 parts water. It thus forms a milk-white fluid that is one of the best germicides and disinfectants known. It is used the world over in hospitals, asylums, stables, etc. Sprinkle it over the feeding places, in the sleeping places, and over the hogs. If they get some of it in their feed, so much the better. Do not let too many hogs run together. Old and young should be kept separate during the winter. We use small hoes.

You may say all these things are too much trouble, too much work. No business is a path strewn with flowers, but

if you like to feed swine, and will give your time and attention to it, you will find it one of the best and quickest methods of condensing the products of the farm into cash, and at the same time keeping up the fertility of the farm by feeding the produce and marketing only the finished products. It is the finished product that brings the most money. Our farms should be manufacturing plants, and everything produced should be sold in a condensed form. In these days of close margins to man can sell the raw material from the farm for a series of years and succeed.

PIG PEN POINTERS.

S. W. COX, South Greenfield, Dade Co., Mo., is offering for sale a nice lot of Poland-China pigs of last fall farrow of Black U. S. Wilkes Tecumseh and Perfection strains, good blood and fine form and finish, and will be sold at reasonable prices. Write Mr. Cox and mention the RURAL WORLD.

E. E. AXLINE, Oak Grove, Mo., reports his great herd boar, "Missouri's Black Chief," that he recently purchased for \$500, is doing nicely at his new home. Thirty sows have been bred to him, and 12 sows have been bred in by their breeders for service. Mr. Axline is expecting a grand lot of young Poland-Chinas this spring.

W. B. CROOKS, of Eight-Mile, Mo., writes: "The RURAL WORLD is bringing me lots of inquiries about my hogs. It must have an immense circulation, as I have had letters from five different states. I think I have sold the Look-Me-Over hog to a farmer in Oklahoma. Many inquiries come from the south, which shows the RURAL WORLD has a large circulation in that rapidly developing territory."

HARRIS & McMAHON, Lamine, Cooper Co., Mo., are ready and waiting to ship upon the order of RURAL WORLD readers. Berkshire of the most approved breeding and good enough to go into any herd. As will be seen by referring to their advertisement on this page, they have a head to select from and have either bred or purchased a number of ready for service. Write them at once and say where you saw their advertisement.

E. H. WARE, of Douglas, Ill., and Edw. Burroughs, of El Paso, Ill., two of the most successful breeders of Poland-Chinas in the state, have joined forces and will hold a public sale of Poland-China hogs at Douglas, Knox Co., Ill., on Thursday, March 23rd, 1900. The sale will be equal if not superior to those sold at previous sales. Watch for the advertisement and send for catalog at once, so you will secure one in good season. When writing mention the RURAL WORLD.

W. E. NEAL, Bridgeport, Ill., a breeder of Berkshire hogs and Shorthorn cattle, whose advertisement will be found in another column, got the following letter from a recent customer:

"The pigs I received safely Friday. We are highly pleased with them and shall look forward for some fine pigs from them. I can tell from appearance that they are gentle, which is a feature I like. We feel that you have treated us well and given us full 100 cents on the dollar." ROLLA OLIVER, "Platte Co., Mo."

JOHN HEDGES & SON, Puna, Ill., are offering a grand lot of gilts sired by the noted Chief Perfection 24 and bred for early spring farrow to Ideal Tecumseh 5697, the boar that won first at Iowa State Fair last year. They have other sows of gilt-edge breeding that are bred to Texas Chief 6257, the boar that won also at State Fair, and is half brother to Chief Perfection 24. Catalog and price list will be sent promptly upon application. Hedges & Son, Puna, Ill.

KERN BROS., Shelby, Mo., are strictly reliable breeders of Poland-China hogs of excellent quality and number one pedigree. They can and will ship to customers hogs that will please and profit the buyer. The prices charged for such stock are very reasonable. Kern Bros. have not been breeding Poland-Chinas long, but they turn out animals that are equally as good as those that come from breeders of long standing. They also breed a few of the best of the other breeds, and for price and mention the RURAL WORLD. See their advertisement on this page.

H. K. KER, Prairie du Rocher, Ill., has a nice, neat, well-gotten up catalog of his royally bred Berkshires and will cheerfully and promptly send a copy to any RURAL WORLD reader who will send him for it. Mr. Ker has Berkshires for sale bred in the purple and individually marked. He will sell at very low prices. Write to him for a copy of his catalog, which is entirely useless. He always places his customers.

H. S. WILLIAMSON, Centralia, Boone Co., Mo., is offering a "Oakwoods" herd of Poland-China and Berkshire hogs, can suit customers with selections of either stock, or a mixture of the two. He has Berkshires just as they wish and guarantee satisfaction and safe delivery at any time. He will sell at very low prices, and he is willing to take what he offers, is to order what one wants from his herd of either breed of hogs and mention the RURAL WORLD.

W. L. BIGGERSTAFF, Lathrop, Mo., in sending change of copy for his advertisement, says that he is offering for sale, writes as follows: "My pigs are doing nicely. I have five boars and two sows that I am offering for sale. The whole lot that I am offering for sale are good, large and growing. I think they are fully as good as their brothers and sisters were that I sold last fall at an average of \$27.40 per head. Mr. Biggerstaff breeds and develops very choice pigs, and the ones he is now offering are above the average in size and quality. They will surely please the purchasers at such reasonable prices as he will make on them. Write him."

R. D. BURNHAM, Champaign, Ill., has a herd of Poland-Chinas that has been selected for the foundation of his stock of best herds in the state. Mr. Burnham having abundant means at command, has been able to select the best of both breeding and individuality. His herd is composed of the most popular strains and prominent family herd boars of first quality and bred right to make the proper crosses with the herd of sows. He has a number of sows of several varieties of fancy piglets are found on his farm, and a very neat and comfortable barn, giving the pedigrees of the herd boars, a number of the sows, with a number of pages especially arranged for his own original plan for herd register covering at least one year. It is handy to carry in a pocket and of great value to any breeder, and will be sent promptly upon application if you send him your address and mention the RURAL WORLD. Send for one and at the same time ask him to quote prices on each of his stock as you may want to buy. Mr. Burnham is a gentleman and will send out stock that will please the buyer.

Mothers will find "Mrs. Winslow's Soothing Syrup" the Best Remedy for Children Teething.

The Shepherd.

OPTIMISTIC ON THE SHEEP INDUSTRY.

One of our old-time friends, a devoted lover of the sheep industry, one who has always done his utmost to advance it, has written a personal letter to the senior editor of the RURAL WORLD, in which we take the liberty to publish. He says: "You have always stood firm for sheep raising in its best form—an independent sheep industry—a little too much I used to think sometimes, but I now think you were about as near right as anybody. You have done more for sheep raising than anybody I am acquainted with. And I cannot let you stop without sheepmen attend their annual meetings or not. There is not a doubt about the future of the sheep business. We are very close to an unprecedented prosperity in wool growing. The demand for wool is increased and the supply is short and cannot be met. Hence prices will be very much advanced. This calls for flocks again. Sheep will be very high before the close of this year. Everybody will go wild again or I am mistaken. The demand for sheep will continue. I cannot see how prices can go higher, as seen from the stock yard reports. It amazes me to note the fact that sheep sell higher than other meat animals. There can be no reason why the business should not expand greatly during the next decade. Our sheep literature is not up-to-date not attracting attention like other live stock. I only know one sheep paper that talks from right and left. The sheep are about the old practices of production that were given 20 years ago. Conditions—markets and a whole lot of things—have changed, making changes that sheepmen do not understand, and unimproved by practical men, are not likely to know. To understand these problems the RURAL WORLD, the home and family paper, must come to the rescue. It is a fact that farmers must have an up-to-date sheep department as well as on horses, cattle, swine, poultry and horticulture. It is no use to talk obsolete methods. You must talk money and methods that can be cashed in the markets. Then will sheepmen attend sheep meetings. Why do Missouri sheepmen make money? Not one of them who does is doing as he did twenty years ago. They have more sense and are up with the times. Why have so many gone out of business? Because the old boys played out and they failed to discover why, and they blamed somebody else and quit."

I know of nobody so capable and willing to give a helping hand as you. I know of no better time to do it than now. I know of no paper that can do this so well as the RURAL WORLD.

EWES AND LAMBS DYING.

Two RURAL WORLD readers are having trouble with their sheep and appeal to other sheep owners for information and advice, which we trust will meet with as satisfactory a response as did Mr. Ernest Jolley's queries in a recent issue. The letters of our correspondents will be submitted to Dr. T. H. White, former State Veterinarian, but in the meantime we will be glad to hear from any of our readers who can throw light on the difficulties described. These experiences and observations will be helpful to many.

LAMBS DYING.

A Northeast Missouri reader of the RURAL WORLD wants to know what causes his lambs to die. He says that at first they are lively and suckle all right, but between the second and third day they die. The ewes generally have plenty of milk, but when one is lacking fresh cow's milk is given. When the lambs get over three days old they are all right. The ewes have a separate, warm barn, plenty of hay and corn twice a day, and sugar beets once a day. The ewes have been sheared around the udders so as to give the lambs a better chance to suck. One-third of the lambs have died thus far.

EWES DYING.

Editor RURAL WORLD: What is the matter with my sheep? They are dying with I know not what. Will you, or some one of your numerous readers of the RURAL WORLD who has larger experience with sheep than I have, tell me what the ailment is? I have managed sheep and improved them with care and attention for 25 years. Began with the old-fashioned Saxony sheep, bred on to them a pure-bred Cotswold buck brought from Kentucky, till I had lengthened the wool of my Saxony and increased the size of the sheep. Then I got a pure-bred South-down buck and bred to my ewes till I thickened the wool to a normal type. My ewes were with a Shropshire buck, which I had and graded my flock up to a standard that will please any man's eye who has a love for medium wool and excellent mutton. They are as large, healthy and thrifty sheep of the Shropshire breed as you will find anywhere in Northeast Missouri. They began lambing the first of February, and have kept right along lambing all during that weather. But now and then one of the typical young ewes will, all of a sudden, refuse to eat, stand still in her tracks, refuses to eat corn, oats, bran, hay or cornfodder. Will, at long intervals, cough a little, then stagger if moved. Head up and ears thrown back, with continued this three or four days. Finally she will walk up to some narrow place in the lot or shed, stick in her head and stand till she can't stand any longer, then drop down, grit her teeth for all or half an hour, and die heavily with lamb. I have worked with them for two weeks or more, doctoring them with one medicine and another, trying a different remedy every time

